# Minimum Design Criteria (MDC) Team Charter

The Minimum Design Criteria (MDC) Team shall begin meeting on March 24, 2014 and shall generally meet on the fourth Monday of every month thereafter.

#### 1. Background and Purpose

The purpose of the MDC Team is to meet the regulatory requirements associated with Session Law 2013-82 (House Bill 480), which requires DENR to convene a stakeholder team that includes industry experts, engineers, environmental consultants, relevant faculty from the University of North Carolina and other interested stakeholders.

In summary, the law tasks this team with the following:

- To consult with DENR in developing **MDCs** that encompass all requirements for siting, site preparation, design, construction, and maintenance of stormwater best management practices (BMPs). The MDCs shall be developed with the goal of generating state stormwater permits that comply with state water quality standards. DENR shall submit its recommendations regarding MDCs to the Environmental Review Commission no later than September 1, 2014.
- To consult with the EMC in developing a rule to establish **a fast-track permitting process** for issuing state stormwater permits without a technical review when the permit applicant complies with the MDCs and submits a permit application prepared by a qualified professional. The EMC shall adopt a fast-track permitting rule no later than July 1, 2016. The rule shall provide for:
  - (1) A process for permit application, review, and determination.
  - (2) A process for ensuring compliance with the MDCs.
  - (3) A specification for the types of professionals that are qualified to prepare a permit application submitted pursuant to this section and the types of qualifications such professionals must have.
  - (4) A process for establishing the liability of a qualified professional who prepares a permit application for a stormwater management system that fails to comply with the MDCs.

The MDC Team includes a number of members who participated on the Technical Review Workgroup (TRW). This is a smaller stakeholder group that met between January 2013 and January 2014 to address a number of specific concerns about stormwater, particularly in the coastal areas of our state. These concerns and the recommendations and actions of the TRW are summarized in the table below.

Product – Current Status	Description	Action needed from MDC
Using the Discrete SCS Method for Computing Water Quality Volume – APPROVED, on DEMLR's web site to provide a voluntary option for designers	Allows designers to use the discrete SCS method to compute runoff volumes if they use the 90 <sup>th</sup> percentile storm event and analyze pre versus post development runoff volumes.	Information item but updates to BMP manual should facilitate use of this option.
Options for Meeting Diffuse Flow Requirements – APPROVED, on DEMLR's web site to provide guidance for designers and reviewers	Clarifies and expands the options for designers to meet diffuse flow requirements in the stormwater and riparian buffer rules.	Information item but updates to BMP manual should facilitate use of this option.
Standards for Relaxing the Two-foot separation from SHWT for Infiltration Devices – APPROVED, on DEMLR's web site to provide guidance for designers and reviewers	Allows designers to reduce the separation between the invert of infiltration systems and the SHWT from 24" to 12" when the design is unlikely to cause water table mounding.	Information item but updates to BMP manual should facilitate use of this option.
Options for Meeting the No Direct Discharge to SA Waters Requirement – APPROVED, on DEMLR's web site to provide guidance for designers and reviewers	Clarifies and expands the options for designers to meet the coastal rule prohibition on new direct stormwater discharges to shellfishing (SA) waters unless effective infiltration is provided.	Information item but updates to BMP manual should facilitate use of this option.
Definitions of Key Stormwater Terms – POSTED on DEMLR web site to guide designers and reviewers, request to include next time the stormwater definitions rule is updated (15A NCAC 2H .1002).	Provides definitions for frequently used terms that are not currently defined in stormwater rule language.	Information item but request that updates to the BMP manual use these terms consistently with the definitions provided.
Alternative Design Criteria for Wet Detention Ponds – conveyed to the MDC Team for consideration and adoption	Provides an option for designing wet detention ponds that is based on hydraulic retention time rather than the SA/DA ratio.	Request that the MDC consider this approach as they develop the wet pond MDCs and updated chapter.

A number of TRW members are also members of the MDC Team. This will help provide continuity between the two stakeholder efforts. The TRW worked diligently on the above items and hope that they may be useful to the MDC Team.

### 2. **Deliverables**

The MDC Team's overall goal is to improve stormwater management in North Carolina by providing design options that are flexible, cost-effective and protective of the state's waters. These design options shall be based on best available scientific data. More specifically, the MDC Team is responsible for advising DEMLR staff in producing the following deliverables:

- A. Standard formats and processes for:
  - i. Organizing individual BMP Manual Chapters.
  - ii. Organizing the overall BMP Manual.
  - iii. Updating the BMP Manual.
  - iv. Training the design community, state and local government plan reviewers and other interested stakeholders about these updates.
- B. Updated MDCs for each of the BMPs in the stormwater manual that are crafted based on the goal of protecting state water quality standards. These will replace the Minimum Design Elements that are currently in the BMP Manual for each practice.
  - i. Level Spreader & Veg. Filter Strip
  - ii. Stormwater Wetland
  - iii. Wet Detention Basin
  - iv. Sand Filter
  - v. Bioretention
  - vi. Disconnected Impervious Surface (DIS)
  - vii. Swales
  - viii. Infiltration Devices
  - ix. Dry Detention Basin
  - x. Permeable Pavement
  - xi. Rainwater Harvesting Systems
  - xii. Green Roof
  - xiii. Proprietary Systems
- C. A fast-track stormwater permitting process when stormwater permit applications and designs are stamped by an appropriately qualified individual. This process shall include guidance on the following:
  - i. A process for permit application, review, and determination and a process for ensuring compliance with the MDCs.
  - ii. A specification for the types of professionals that are qualified to prepare a permit application submitted pursuant to this section and the types of qualifications such professionals must have.
  - iii. A process for establishing the liability of a qualified professional who prepares a permit application for a stormwater management system that fails to comply with the MDCs.
- D. Recommendations on rule changes that may be needed to accommodate the updates to stormwater BMP design criteria.

# 3. Team membership

Name	Group	Company / Representing	Phone	email
Marc Houle, PE	Eng	Yarbrough Williams & Houle Inc.	(704) 556-1990 (704) 361-3524	march@y-wh.com
Cameron Moore	Eng	Business Alliance for a Sound Economy	(910) 799.2611	cameron@wilmhba.org
Ronald Horvath, PE	Eng	Horvath Associates	(919) 490-4990	ron.horvath@horvathassociates.com
Tim Clinkscales, PE	Eng	Paramounte Engineering	(910) 791-6707	tclinkscales@paramounte-eng.com
Hunter Freeman, PE	Eng	Withers & Ravenel	(919) 469-3340	hfreeman@withersravenel.com
Mike Gallant, PE	Eng	Michael C. Gallant, PE	(910) 448-1046	gallantmc@yahoo.com
Tom Murray, PE	Eng	W.K. Dickson & Co., Inc. & PENC	(919) 782-0495	tmurray@wkdickson.com
JD Solomon, PE	Eng	CH2M Hill	(919) 760-4099	JD.Solomon@CH2M.com
Rob Weintraub	HBA	Home Builders Association	(919) 291-2213	amenitydeveloper@gmail.com
Jonathan Bivens, PE	Con	S. T. Wooten Corporation	(252) 291-5165	jonathan@stwcorp.com
Derek Pielech, PE	LG	City of Wilmington	(910) 341-5818	derek.pielech@wilmingtonnc.gov
Virginia Spillman, PE	LG	City of Greensboro	(336) 373-2055	claudia.spillman@greensboro-nc.gov
Robert Patterson, PE	LG	Town of Morrisville	(919) 463-6216	RPatterson@townofmorrisville.org
Mike MacIntyre, PE	LG	Charlotte-Mecklenburg Storm Water Services	(704) 432-5570	mmacintyre@ci.charlotte.nc.us
Todd Miller	Env	N.C. Coastal Federation	(252) 393-8185	toddm@nccoast.org
Peter Raab	Env	American Rivers	(919) 682-3500 (o) (202) 441-6174 (c)	praabe@americanrivers.org
Dr. Bill Hunt, PE	Ac	NCSU – Dept of Biological and Agricultural Engineering,	(919) 515-6751	wfhunt@ncsu.edu
Dr. Eban Bean, PE	Ac	East Carolina University Department of Engineering	(252) 328-9722	beaneb@ecu.edu
Brian Lipscomb, PE	DOT	NCDOT Hydraulics Unit	(919) 707-6735	blipscomb@ncdot.gov
Joseph Hinton, PE, PLSS	Soil	ECS Carolinas, LL	(336) 856-7150	jhinton@esclimited.com
Boyd DeVane	DWR	Webscape Unit	(919) 807-6375	boyd.devane@ncdenr.gov
Toby Vinson, PE	DEMLR	Chief, Land Quality Section	(919) 807-9222	toby.vinson@ncdenr.gov
Bradley Bennett	DEMLR	Stormwater Program	(919) 807-6378	bradley.bennett@ncdenr.gov
Annette Lucas, PE	DEMLR	Stormwater Program	(919) 807-6381	annette.lucas@ncdenr.gov

Eng = Engineering/design community

HBA = Home Builders' Association

Con = Construction

- LG = Local Government
- Env = Environmental Group
- Ac = Academia

Soil = Soil Scientist

#### 4. Membership responsibilities

Before each meeting of the MDC Team, members are responsible for reviewing the materials that will be discussed at the meeting and formulating opinions on the information on these materials. These opinions shall be based on their professional experience as well as discussions with the constituencies they represent (if appropriate). It is anticipated that between 20 and 40 pages of material will be reviewed by team members each month.

DEMLR staff will provide, prepare and update materials in accordance with the Team's discussions and decisions. Between meetings, DEMLR staff may contact individual MDC Team members to request their professional opinions on particular topics at hand. Also, DEMLR may request that MDC Team members make a brief presentation at a meeting if a topic coincides with his area of expertise. MDC Team members will not be required to prepare written materials for the meeting, although they are welcome to do so on a volunteer basis.

#### 5. Team meetings and operations

DEMLR staff will:

- Facilitate team meetings.
- Provide an agenda, deliverables and meeting minutes for all team meetings.
- Provide a web site where all documents related to the team will be available.
- Email all materials that need to be reviewed no later than the second Monday of each month.

Team members are requested to:

- Review all materials for each meeting and share them with their constituencies (if appropriate), bringing relevant comments to Team meetings.
- Arrive promptly and stay for the entire meeting.
- Keep their comments during meetings concise and avoid repeating themselves or other team members.
- Treat everyone with respect and courtesy.
- Seek solutions that every member of the team can at least "live with."

Team operations:

- Meetings will be held the fourth Monday of every month from 10:00 am to 1:00 pm unless there is a conflict such as a holiday. The Team will select alternate dates for fourth Monday holidays at the first meeting.
- Decisions will generally be made by consensus when consensus is not possible, a vote will be taken.
- Members may occasionally "call in" to the meeting if necessary; however, they should plan to be at most of the meetings in person. Team members may occasionally appoint a substitute if they are unable to be present for a meeting.
- If a team member finds he can no longer serve on the team, he is welcome to suggest another individual to fulfill his role. Any changes in team membership shall be approved by DENR leadership.

## 6. Draft Tentative Schedule

The draft tentative schedule for the first few months of the MDC Team meetings appears below. The schedule will be expanded and updated periodically to reflect the Team's progress and remaining goals as our efforts progress.

Date	Discussion Topics	
Mar 2014	Team charter	
	<ul> <li>Briefing on the Technical Review Team and the Low Impact Development Team.</li> </ul>	
	<ul> <li>Discuss the product that we will provide to the Legislature by September 1, 2014.</li> </ul>	
	<ul> <li>Discuss organization of individual BMP manual chapters and the overall BMP Manual.</li> </ul>	
Apr 2014	<ul> <li>Finalize the team charter, September 1, 2014 product, and the BMP chapter and manual organization.</li> </ul>	
	<ul> <li>Draft MDCs for wet detention ponds.</li> </ul>	
May 2014	<ul> <li>Finish MDCs and updated BMP manual chapter for wet detention ponds.</li> <li>Draft MDCs for infiltration devices.</li> </ul>	
Jun 2014	<ul> <li>Finish MDCs and updated BMP manual chapter for infiltration devices.</li> <li>Draft MDCs for next chapter of the BMP manual selected by the Team.</li> </ul>	

The schedule above is flexible. If the Team needs more time to consider and discuss the above issues, then that will take precedence over adhering to a schedule. The schedule will be updated as the MDC Team progresses.

## Anticipated Key Deliverable Dates:

- On **September 1, 2014**, DEMLR shall submit the following items to the Legislature to comply with the legislative deadline:
  - An upgrade to the Storm-EZ permitting tool that will allow qualified professionals to certify that they are submitting a fast-track application in which all BMPs comply with all of the applicable MDCs.
  - A list of universal MDCs that apply to every type of BMP.
  - A list of BMP-specific MDCs for each of the 13 commonly used BMPs. By September 1, the Team will have updated the MDCs for several of the BMPs (but not all 13). The BMPs that the team has not had a chance to evaluate before September 1 will temporarily be covered by the MDCs contained with the current version of the NC Stormwater BMP Manual. The MDCs that the Team has not evaluated by September 1 will be updated as the Team progresses.

- In **January 2015**, the MDC Team will take a break from updating the BMP Manual and MDCs to develop the fast-track permitting process. After that is complete (we anticipate it will take a few months), then the MDC Team will go back to updating the remaining MDCs and associated BMP manual chapters.
- In **May 2015**, DEMLR staff will present the Team's proposed fast-track permitting process to the EMC and begin the rule-making process.
- In **Fall 2015**, DEMLR expects that that Team will complete the process of updating the MDCs and will have the final BMP Manual Chapters in place.